



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,651	07/27/2004	Riccardo Defilla	04-0148 (BOE 0483 PA)	4650
27256	7590	06/26/2006		EXAMINER
ARTZ & ARTZ, P.C. 28333 TELEGRAPH RD. SUITE 250 SOUTHFIELD, MI 48034			RADI, JOHN A	
			ART UNIT	PAPER NUMBER
				3641

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/710,651	DEFILLA ET AL.	
	Examiner John A. Radi	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 July 2004.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-40 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 39 and 40 rejected under 35 U.S.C. 102(b) as being anticipated by Ballard (US 3667075).

Ballard teaches a method of articulating a berth mattress comprising: articulating a first joining of a berth mattress support structure via first inflatable member (12c), sliding a second joint of said berth mattress (foot of mattress slides towards left), and articulating a third joint (head of mattress) via a second inflatable member (12b). Further comprising articulating a fourth joint (15) by second inflatable member (12b).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-20, 23-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantu (US 6056239), and further in view of Ballard (US 3667075).

With respect to claims 1, 25, 33, 36, Cantu teaches a crew rest support system (fig 2) for use on an aircraft (abstract) comprising a berth enclosure (20), a berth mattress (30). What Cantu doesn't teach is a pneumatic system and related inflatable members or support structure to adjust the mattress position. Ballard teaches a pneumatic system (abstract and fig 1-10), an inflatable member (12), a support structure (bellows 12b/d) and at least one pump actuating said inflatable member (air supply 37), the motivation for combining would be to provide a non-electronic method of adjusting the seat position of Cantu using the pre-existing air/pneumatic supply onboard an aircraft. Therefore, it would have been obvious to one skilled in the art at the time of invention to combine Cantu and Ballard to create an aircraft sleeping accommodations in which the mattress/cushions are adjusted pneumatically.

With respect to claim 2, berth mattress is a pad or cushion.

With respect to claims 3-6, berth mattress is cocoon shaped (fig 2, elongated with rounded corners) and ergonomic (see fig 2, molded to accommodate head, torso and legs), and the headrest is adjustable.

With respect to claim 7, wherein the headrest is adjusted pneumatically, see above with respect to claim 1 for motivation for combining with Ballard.

With respect to claim 8, mattress comprises a plurality of mattress segments (fig 2, head, torso, seat, leg segments).

With respect to claim 9, wherein support structure comprises a frame (Ballard 11).

With respect to claim 10, wherein support structure is a weaved material. While Ballard is silent as towards the material used, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a weaved material for the bellows, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

With respect to claim 11, wherein inflatable member comprises an air bag (Ballard, 12).

With respect to claim 12, said air bag (Ballard, 12) is pleated (fig 1).

With respect to claim 13, inflatable member articulates (Ballard, fig 7, 5, 4, 2, 9, 10).

With respect to claim 14-16, wherein inflatable member comprises a first inflatable member to accommodate a first portion (Ballard, 12c foot) and a second member supporting a second portion (Ballard, 12b lower head support).

With respect to claims 17 and 18, wherein second inflatable member articulates a plurality of joints (inflatable member 12, consists of several pockets capable of independent inflation to articulate in various ways, 12a-e) through use of the pump (Ballard, 37).

With respect to claim 19, wherein plurality of joints is selected from at least one of: ankle (12c), back (12b/d), pelvic (12e), neck (12a/b).

With respect to claim 20, armrest (44).

With respect to claim 24, wherein support structure contains a fixed joint (Ballard, 15), and sliding joint (Ballard foot of mattress).

With respect to claim 26, retractable tray (53).

With respect to claim 27, 28, 37, controller for the pumps and bellows (Ballard, Fig 1, lower schematic), and locating said controller within the berth (Ballard, control located near the bed – control box 17).

With respect to claim 29, stowage area in the berth (51).

With respect to claim 30, berth divided into a first and second half (fig 2, top and bottom).

With respect to claim 31, first half contains first berth mattress and support system.

With respect to claim 32, second half contains second berth mattress and support system.

With respect to claim 34, access unit for accessing berthing compartments (left side of Cantu berths comprises an “access unit” by way passengers can climb into respective berths).

With respect to claim 35, wherein the enclosure contains 1<sup>st</sup> and 2<sup>nd</sup> (Cantu fig 2, top and bottom), ergonomic shaped berths (shaped around the human body).

With respect to claim 38, wherein the support member articulates to a plurality of orientations (Cantu Fig 2, 5a, 5b and Ballard fig 5, 7, 2, 4, 6, 3).

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantu (US 6056239), in view of Ballard (US 3667075) and further in view of Le Gette (US

6698827). Cantu in view of Ballard teaches the invention as described above with respect to claim 1 and 20, but doesn't teach a deployable, flexible arm rest that articulates with the bending of the mattress. Le Gette teaches a flexible arm rest (40) that retracts and deploys with the articulation of the back with respect to the seat (33), the motivation being to create a light arm rest that is set up and stowed without intervention of the user while the seat and back are articulated with respect to one another. Therefore it would have been obvious to one skilled in the art at the time of invention to combine Le Gette with Cantu in view of Ballard to add a flexible deployable arm rest that articulates with a crew berthing unit.

### ***Conclusion***

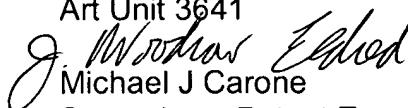
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Radi whose telephone number is 571-272-5883. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John A Radi  
Patent Examiner  
Art Unit 3641

  
Michael J Carone  
Supervisory Patent Examiner  
Art Unit 3641